

Submitted are three substitute sheets for pages 11-13, which include these amendments, and provide the claims on a separate sheet.

Also submitted on a separate sheet is an abstract.

No new matter is added, so entry of these amendments would be proper.

Withdrawal of the rejection under 35 U.S.C. 112 is believed to be warranted by the foregoing.

Rejection under 35 U.S.C. 102

Claims 1-9 stand rejected hereunder as anticipated by Bagepalli, which rejection is respectfully traversed.

A first distinction is that the present seal segments are designed to be retractable (note above-cited portions of specification), as now recited in the claims. Retractability is not disclosed or suggested in the reference.

Another distinction is that the claimed segment is recited as having an inner face on which the brush is mounted. Bagepalli describes a "mounting block 30 disposed radially-outward from, and is attached to, the first and second labyrinth-seal segments 26 and 28" (col. 3, ln. 51-53; emphasis added). Thus, the present segment is a unitary labyrinth in which a brush is disposed, whereas in Bagepalli the brush and two labyrinths are all attached to the mounting block.

Accordingly, the claim is not anticipated and this rejection may be withdrawn.

Other prior art cited

Turnquist describes a brush seal but nothing about how it is mounted, and especially not as a retractable seal.

Skinner discloses a brush seal with an opening (see Fig. 6), a problem that is addressed and overcome by the present invention (see applicants' specification at the paragraph bridging pages 4 and 5).

Hemsley does not disclose a retractable seal.

Conclusion

In light of the foregoing, entry of the amendments, withdrawal of the rejections, and further and favorable action, in the form of a Notice of Allowance, are believed to be next in order, and such actions are earnestly solicited.

Petition for Extension of Time

Pursuant to the provisions of 37 CFR 1.136(a), Applicants hereby petition for a one month extension of time to 4 February 2002 (3 February being a Sunday) in order to respond to the Office Action dated 3 October 2001. A check in the amount of \$ 110.00 is attached.

Respectfully submitted,



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4 February 2002

**CERTIFICATE OF MAILING OR
TRANSMISSION – 37 CFR 1.8**

I hereby certify that I have a reasonable basis that this paper, along with any referred to above, (i) are being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to Commissioner of Patents and Trademarks, Washington, D.C. 20231, or (ii) are being transmitted to the U.S. Patent & Trademark Office in accordance with 37 CFR § 1.6(d).

DATE: 4 Feb. 2002

NAME: BRAD RUBEN

SIGNATURE: Brad Ruben

APPENDIX OF MARK-UPS OF AMENDMENTS

1. (Amended.) A retractable packing segment for an apparatus that extracts work from the expansion of a gaseous working fluid, said apparatus comprising a rotating shaft disposed in a casing, said packing segment disposed in a ring formed from a plurality of packing segments and centered on an axis defined by said shaft to provide a seal therearound, said segment comprising: an inner face for sealing against said shaft; at least one brush seal disposed on the inner face of said segment; opposing side ends of said segment cut parallel with radii of said axis; and said brush seal having opposing ends at least one of said ends cut non-parallel with radii of said axis.

6. (Amended.) A retractable brush seal for an apparatus that extracts work from the expansion of a gaseous working fluid, said apparatus comprising a rotating shaft disposed in a casing, said brush seal in the geometry of a ring formed from a plurality of adjacent abutting packing segments and centered on an axis defined by said shaft to provide a brush seal therearound, each said segment comprising: an inner face for sealing against said shaft; at least one brush seal disposed on the inner face of said segment; opposing ends of said segment cut parallel with radii of said axis; said brush seal having opposing side ends cut non-parallel with radii of said axis, one of said side ends cut angled to form a tongue extending past the segment end and the other of said ends cut at the same angle relative to said segment to provide a groove for accepting a tongue formed by a brush seal on another packing segment.